Ordering number: EN 2237B

Monolithic Linear IC

LA4275

6.0 W AF Power Amplifier for Home Stereo, TV Use

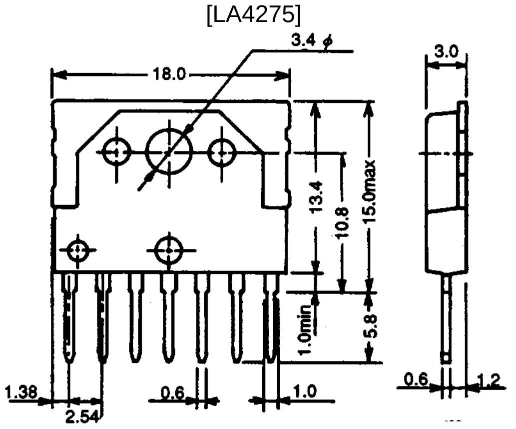
Features

- Small-sized package of 7-pin SIP
- High power and low distortion
  P_O = 6.0 W at V_{CC} = 25 V, R_L = 8 Ω,
  f = 1 kHz, THD = 1.0%
  THD = 0.1% at V_{CC} = 25 V, R_L = 8 Ω,
  f = 1 kHz, P_O = 2 W
- Minimum number of external parts required (no bootstrap capacitor required)
- Low pop noise at the time of power switch ON/OFF
- Excellent ripple rejection (55 dB typ.)
- Wide operating voltage range (10 V to 32 V)
- Protector against abnormalities built in (thermal shutdown, overvoltage)

Package Dimensions

unit : mm

3075-SIP7H



Specifications

Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V_{CC} max	Quiescent	35	V
Maximum output current	I_O peak		3.5	A
Allowable power dissipation	Pd max	With heat sink	10	W
Operating temperature	Topr		–20 to +75	°C
Storage temperature	Tstg		–40 to +150	°C

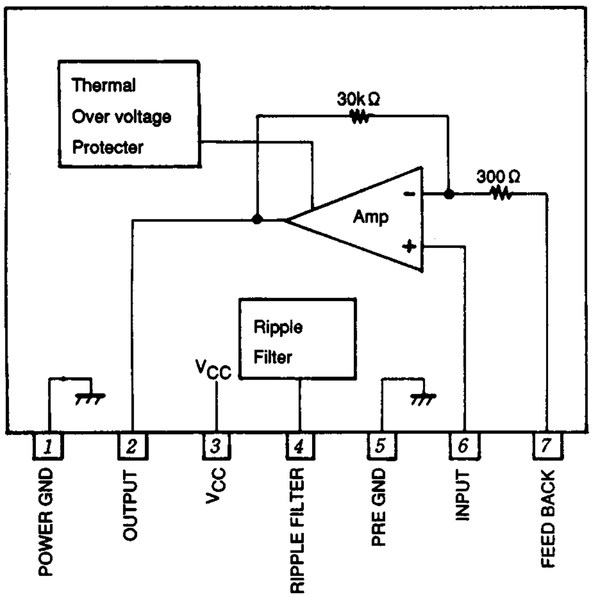
Operating Conditions at Ta = 25°C

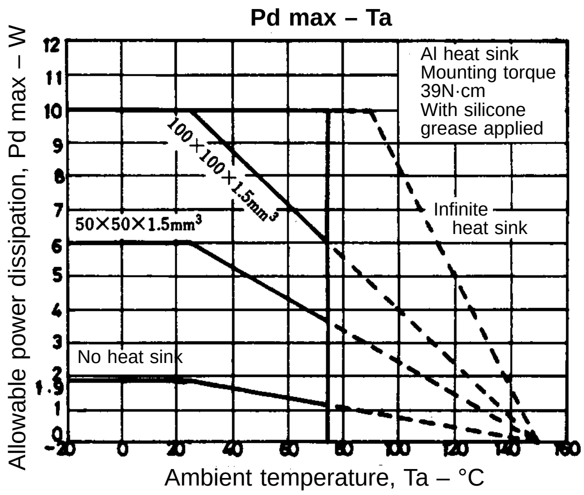
Parameter	Symbol	Conditions	Ratings	Unit
Recommended supply voltage	V_{CC}		25	V
Operating voltage range	V_{CC} op		10 to 32	V
Recommended load resistance	R_L		8 to 16	Ω

Operating Characteristics at Ta = 25°C, V_{CC} = 25 V, R_L = 8 Ω, f = 1 kHz, Rg = 600 Ω, See specified Test Circuit.

Parameter	Symbol	Conditions	min	typ	max	Unit
Quiescent current	I_{CCO}	Quiescent		30	60	mA
Voltage gain	VG		38	40	42	dB
Output power	P_O	THD = 1%	5.0	6.0		W
Total harmonic distortion	THD	P_O = 2 W		0.1	0.8	%
Output noise voltage	V_{NO}	Rg = 10 kΩ, BW = 20 Hz to 20 kHz		0.25	1.0	mV
Ripple rejection	SVRR	Rg = 10 kΩ, f_R = 100 Hz, V_R = 0 dBm	45	55		dB

Equivalent Circuit Block Diagram and Pin Assignment





Sample Application Circuit (Test Circuit)

